

Zonal Criteria (data from Supplement to 2001 Biop)

EBS	% Closed Areas	Trawl Fisheries		Longline	Pot	Zonal Criteria
	Pollock/Cod	At. Mack	Cod			
0-3 nm	100	100		100	100	1. % closed areas by zone and BS/AI/GOA
3-10 nm	92	100		61	63	2. % of catch by zone and BS/AI/GOA
10-20 nm	60	100		57	60	3. Harvest rate by zone and BS/AI/GOA
Foraging Area	45	45		44	45	4. Other
Total CH	58	73		52	54	

GOA	% Closed Areas	Trawl Fisheries		Longline	Pot
0-3 nm	100				
3-10 nm	83			29	29
10-20 nm	48			16	27
Foraging Area	0			0	0
Total CH	57			20	27

2002 BSAI GOA pollock, cod and Atka mackerel Catch/Biomass (%)

	Jan-Jun	July - Dec	Total
0-10 nm	1.1	1.6	2.3
10-20 nm	5.4	9.7	11.8
Foraging Area	10.8	21.5	22.5
CH Total	6.3	11.2	13.5
Total	6.2	7.2	13

TRADE OFF TOOL - Wgt Estimate of Impact by Number of Sea Lions in an Area by zone and gear type

- Step 1 Assign each rookery or haulout as a year-round or seasonal use area based on counts over last 6 years.
- Step 2 Assign combinations of gear type and spatial use to classes of Potential Impact (consistent with 2000 and 2001 Biops)
- Step 3 Assign point values to classes of Potential Impact (consistent with average removal rates of gear type)
- Step 4 Trade-off Analysis
 - identify haulouts or rookeries a change in fishing practices would affect
 - identify the seasons a change in fishing practices would affect
 - for each specific change in fishing practice, assign a class of impact to the appropriate haulouts or rookeries
 - for changes in fishing practices that increase potential impacts, the class is considered positive
 - for changes in fishing practices that decrease potential impacts, the class is considered negative
 - determine the net impact of all proposed changes as the sum of the product of Class of impact and # of animals

- Ste 5 Evaluation
 - No loss in protection - net change is less than 0
 - Loss of protection - net change is greater than 0

- Assumptions:
1. The potential impact of a change in fishing practices is independent of trends in the local abundance of SSL
 2. The relative impact of a given change in fishing practices is accurately reflected in the point value assigned to that class
 3. The relative impact of two or more changes in fishing practices can be predicted by a linear combination of effects
 4. The relative impact of a change in fishing practices is independent of location within the range of the wSSL
 5. The wSSL population is only affected by fishing practices that remove pollock, Pacific cod, or Atka mackerel

- Key Issues:
1. The relative point values assigned to each class of potential impact by a change in fishing practices
 2. The number of years used to determine whether a rookery or haulout was used year-round or seasonally
 3. The ability to properly weight the impacts of a change in fishing by using the most recent survey data for a given haulout or rookery

Example: Proposed Changes in Fisheries Relative to Current Management Configuration

Site #	(May - Sept)	(October - April)	Fishing Impact		Fishing Impact		Total Pt Change	
	# of animals in Breeding Season	# of animals outside Breeding Season	Breeding Season	BS Points	non-Breeding Season	nBS Points		
1	0	225						
2	1400	500			F	1250		
3	35	0			J	0		
4	0	85	I	0				
5	800	115	-I	-20000				
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.								
135	0	600			J	30000		
				-20000			31250	11250

Pts	Class	Description
0	A	no effect
0.25	B	jig and pot gear 10-20 nm in CH
0.5	C	jig and pot gear 3-10 nm in CH
1	D	jig and pot gear inside of 3 nm in CH
1.25	E	long line gear 10-20 nm in CH
2.5	F	long line gear 3-10 nm in CH
5	G	long line gear inside of 3 nm in CH
12.5	H	trawl gear 10-20 nm in CH
25	I	trawl gear 3 -10 nm in CH
50	J	trawl gear inside 3 nm in CH

Evaluation: the proposed changes would result in a loss of net protection for the WSSL